

## **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings of claims in the application:

### **LISTING OF CLAIMS**

1-6. (Canceled)

7. (Previously Presented)      A method for setting Quality of Service (QoS) bits of packets sent by a user of a data communications network, comprising:

receiving, at a service selection gateway to which the user is in communication, a request from the user to assign a particular Quality of Service level to at least one packet flow transmitted by the user;

assigning, in response to said request, a Quality of Service level to said at least one packet flow;

setting said QoS bits within said packets belonging to said at least one packet flow received at the service selection gateway in accordance with said Quality of Service level; and

transmitting said packets belonging to said at least one packet flow to the data communications network,

wherein all of said packets belonging to said at least one packet flow are IP packets, and said QoS bits are the precedence bits within the ToS/Differentiated Services field of said IP packets.

8. (Canceled)

9. (Previously Presented) A method for setting Quality of Service (QoS) bits of packets sent by a user of a data communications network, said method comprising:

- receiving, at a service selection gateway to which the user is in communication, a request from the user to assign a particular Quality of Service level to at least one packet flow transmitted by the user;
- assigning, in response to said request, a Quality of Service level to said at least one packet flow;
- setting said QoS bits within said packets belonging to said at least one packet flow received at the service selection gateway in accordance with said Quality of Service level; and
- transmitting said packets belonging to said at least one packet flow to the data communications network;

communicating between the service selection gateway and an AAA server the request;

and

communicating between the service selection gateway and the AAA server information related to the quantity of packets transmitted by the user and modified by the service selection gateway with respect to the QoS bits.

10. (Previously Presented) A method for setting Quality of Service (QoS) bits of packets sent by a user of a data communications network, said method comprising:

- receiving, at a service selection gateway to which the user is in communication, a request from the user to assign a particular Quality of Service level to at least one packet flow transmitted by the user;

assigning, in response to said request, a Quality of Service level to said at least one packet flow;

setting said QoS bits within said packets belonging to said at least one packet flow received at the service selection gateway in accordance with said Quality of Service level; and transmitting said packets belonging to said at least one packet flow to the data communications network;

communicating between the service selection gateway and an AAA server the request; and

communication between the service selection gateway and the AAA server information related to the duration of time that packets transmitted by the user are modified by the service selection gateway with respect to the QoS bits.

11. (Original) A method in accordance with claim 10, further comprising:  
communicating between the service selection gateway and the AAA server information related to the quantity of packets transmitted by the user and modified by the service selection gateway with respect to the QoS bits.

12-16. (Canceled)

17. (Previously Presented) An apparatus for setting Quality of Service (QoS) bits of packets sent by a user of a data communications network, said apparatus comprising:

a service selection gateway (SSG) in communication with the user,-said SSG receiving a user service profile including a QoS level in response to an attempt to log-in by the user, the QoS level being associated with the user; and

a packet modifier associated with said SSG, said packet modifier modifying the QoS bits of packets sent by the user to reflect the QoS level received for the user, said packet modifier modifying all packets transmitted by the user to the data communications network via the SSG,

wherein all modified packets are IP packets and the QoS bits are the precedence bits in the ToS/Differentiated Services field of the IP packets.

18. (Previously Presented) An apparatus for setting Quality of Service (QoS) bits of packets sent by a user of a data communications network, said apparatus comprising:

a service selection gateway (SSG) in communication with the user,-said SSG receiving a user service profile including a QoS level in response to an attempt to log-in by the user, the QoS level being associated with the user; and

a packet modifier associated with said SSG, said packet modifier modifying the QoS bits of packets sent by the user to reflect the QoS level received for the user, said packet modifier modifying packets belonging to at least one flow of packets transmitted by the user to the data communications network via the SSG,

wherein all modified packets are IP packets and the QoS bits are the precedence bits in the ToS/Differentiated Services field of the IP packets.

19-22. (Canceled)

23. (Previously Presented) An apparatus for setting Quality of Service (QoS) indicator bits of packets sent by a user of a data communications network, said apparatus comprising:

- a service selection gateway (SSG) in communication with the user and the data communications network; and
- a packet modifier associated with said SSG, responsive to a QoS request by the user, setting a QoS bit field of packets sent by the user to the data communications network via the SSG,

wherein said SSG is in communication with an AAA server and sends the AAA server information relating to the number of packets sent by the user to the data communications network via the SSG which are modified in accordance with QoS.

24-26. (Canceled)

27. (Previously Presented) An apparatus for setting Quality of Service (QoS) indicator bits of packets sent by a user of a data communications network, said apparatus comprising:

- a service selection gateway (SSG) in communication with the user and the data communications network; and
- a packet modifier associated with said SSG, responsive to a QoS request by the user, setting a QoS bit field of packets sent by the user to the data communications network via the SSG,

wherein said SSG is in communication with an AAA server and sends the AAA server information relating to the amount of time that said QoS request is in effect.

28-36. (Canceled)

37. (Previously Presented) An apparatus for setting Quality of Service (QoS) bits of packets sent by a user of a data communications network, said apparatus comprising:

- means for receiving, at a service selection gateway to which the user is in communication, a request from the user to assign a particular Quality of Service level to at least one packet flow transmitted by the user;
- means for assigning, in response to said request, a Quality of Service level to said at least one packet flow;
- means for setting said QoS bits within said packets belonging to said at least one packet flow received at the service selection gateway in accordance with said Quality of Service level;
- and
- means for transmitting said packets belonging to said at least one packet flow to the data communications network,

wherein all of said packets of said at least one packet flow are IP packets, and said QoS bits are the precedence bits within the ToS/Differentiated Services field of said IP packets.

38. (Canceled)

39. (Previously Presented) An apparatus for setting Quality of Service (QoS) bits of packets sent by a user of a data communications network, said apparatus comprising:

means for receiving, at a service selection gateway to which the user is in communication, a request from the user to assign a particular Quality of Service level to at least one packet flow transmitted by the user;

means for assigning, in response to said request, a Quality of Service level to said at least one packet flow;

means for setting said QoS bits within said packets belonging to said at least one packet flow received at the service selection gateway in accordance with said Quality of Service level;

means for transmitting said packets belonging to said at least one packet flow to the data communications network;

means for communicating between the service selection gateway and an AAA server said request; and

means for communicating between the service selection gateway and the AAA server information related to the quantity of packets transmitted by the user and modified by the service selection gateway with respect to the QoS bits.

40. (Previously Presented) An apparatus for setting Quality of Service (QoS) bits of packets sent by a user of a data communications network, said apparatus comprising:

means for receiving, at a service selection gateway to which the user is in communication, a request from the user to assign a particular Quality of Service level to at least one packet flow transmitted by the user;

means for assigning, in response to said request, a Quality of Service level to said at least one packet flow;

means for setting said QoS bits within said packets belonging to said at least one packet flow received at the service selection gateway in accordance with said Quality of Service level;

means for transmitting said packets belonging to said at least one packet flow to the data communications network;

means for communicating between the service selection gateway and an AAA server said request; and

means for communication between the service selection gateway and the AAA server information related to the duration of time that packets transmitted by the user are modified by the service selection gateway with respect to the QoS bits.

41. (Previously Presented) An apparatus in accordance with claim 40, further comprising:

means for communicating between the service selection gateway and the AAA server information related to the quantity of packets transmitted by the user and modified by the service selection gateway with respect to the QoS bits.

42-45. (Canceled)

46. (Previously Presented) A method for setting Quality of Service (QoS) bits of packets sent by a user of a data communications network, said method comprising:

obtaining a user service profile including a QoS level for the user in response to a user log-in attempt to a service selection gateway (SSG), the QoS level being associated with the user; routing all packets originated by the user through the SSG during a session;



setting, in the SSG, the QoS bits of packets originated by the user in accordance with the QoS level for the user;

passing, after said QoS bits have been set, said packets on to the data communications network;

modifying, in the SSG, the QoS bits of the packets transmitted by the user; and

communicating with an authentication, authorization and accounting (AAA) server information related to the duration of time that packets transmitted by the user are modified by the SSG with respect to the QoS bits.

47. (Previously Presented) A method for setting Quality of Service (QoS) bits of packets sent by a user of a data communications network, said method comprising:

obtaining a user service profile including a QoS level for the user in response to a user log-in attempt to a service selection gateway (SSG), the QoS level being associated with the user;

routing all packets originated by the user through the SSG during a session;

setting, in the SSG, the QoS bits of packets originated by the user in accordance with the QoS level for the user;

passing, after said QoS bits have been set, said packets on to the data communications network;

modifying, in the SSG, the QoS bits of the packets transmitted by the user; and

communicating with an authentication, authorization and accounting (AAA) server information related to the quantity of packets transmitted by the user and modified by the SSG with respect to the QoS bits.

48. (Canceled)

49. (Previously Presented) A method for setting Quality of Service (QoS) bits of packets sent by a user of a data communications network, said method comprising:

- initiating a request to an authentication, authorization and accounting (AAA) server in response to the user's attempt to log-in;
- receiving, in response to said request, a user service profile corresponding to the user, said user service profile including a Quality of Service field, the user service profile being associated with the user;
- using said Quality of Service field to set the QoS bits within said packets transmitted by the user;
- modifying the QoS bits in the packets transmitted by the user; and
- communicating, with an authentication, authorization and accounting (AAA) server, information related to the duration of time that packets transmitted by the user are modified with respect to the QoS bits.

50. (Previously Presented) A method for setting Quality of Service (QoS) bits of packets sent by a user of a data communications network, said method comprising:

- initiating a request to an authentication, authorization and accounting (AAA) server in response to the user's attempt to log-in;
- receiving, in response to said request, a user service profile corresponding to the user, said user service profile including a Quality of Service field, the user service profile being associated with the user;

using said Quality of Service field to set the QoS bits within said packets transmitted by the user;

modifying the QoS bits in the packets transmitted by the user; and

communicating, with an authentication, authorization and accounting (AAA) server, information related to the quantity of packets transmitted by the user and modified with respect to the QoS bits.

51. (Previously Presented) A method in accordance with claim 17, wherein said SSG is also in communication with an authentication, authorization and accounting (AAA) server.

52. (Previously Presented) A method in accordance with claim 51, wherein the user service profile including the QoS level is received from the AAA server.

53. (Canceled)

54. (Previously Presented) An apparatus for setting Quality of Service (QoS) bits of packets sent by a user of a data communications network, said apparatus comprising:

means for obtaining a user service profile including a QoS level for the user in response to a user log-in attempt to a service selection gateway (SSG)), the QoS level being associated with the user;

means for routing all packets originated by the user through the SSG during a session;

means for setting, in the SSG, the QoS bits of packets originated by the user in accordance with the QoS level for the user;

means for passing, after said QoS bits have been set, said packets on to the data communications network;

means for modifying the QoS bits of the packets transmitted by the user; and

means for communicating, with an authentication, authorization and accounting (AAA) server, information related to the duration of time that packets transmitted by the user are modified with respect to the QoS bits.

55. (Previously Presented) An apparatus for setting Quality of Service (QoS) bits of packets sent by a user of a data communications network, said apparatus comprising:

means for obtaining a user service profile including a QoS level for the user in response to a user log-in attempt to a service selection gateway (SSG)), the QoS level being associated with the user;

means for routing all packets originated by the user through the SSG during a session;

means for setting, in the SSG, the QoS bits of packets originated by the user in accordance with the QoS level for the user;

means for passing, after said QoS bits have been set, said packets on to the data communications network;

means for modifying the QoS bits of the packets transmitted by the user; and

means for communicating, with an authentication, authorization and accounting (AAA) server, information related to the quantity of packets transmitted by the user and modified by the SSG with respect to the QoS bits.

56. (Canceled)

57. (Previously Presented) An apparatus for setting Quality of Service (QoS) bits of packets sent by a user of a data communications network, said apparatus comprising:

means for initiating a request to an authentication, authorization and accounting (AAA) server in response to the user's attempt to log-in;

means for receiving, in response to said request, a user service profile corresponding to the user, said user service profile including a Quality of Service field, the user service profile being associated with the user;

means for using said Quality of Service field to set the QoS bits within said packets transmitted by the user;

means for modifying the QoS bits in the packets transmitted by the user; and

means for communicating, with an authentication, authorization and accounting (AAA) server, information related to the duration of time that packets transmitted by the user are modified with respect to the QoS bits.

58. (Previously Presented) An apparatus for setting Quality of Service (QoS) bits of packets sent by a user of a data communications network, said apparatus comprising:

means for initiating a request to an authentication, authorization and accounting (AAA) server in response to the user's attempt to log-in;

means for receiving, in response to said request, a user service profile corresponding to the user, said user service profile including a Quality of Service field, the user service profile being associated with the user;

means for using said Quality of Service field to set the QoS bits within said packets transmitted by the user;

means for modifying the QoS bits in the packets transmitted by the user; and

means for communicating, with an authentication, authorization and accounting (AAA) server, information related to the quantity of packets transmitted by the user and modified with respect to the QoS bits.